

CLAIMS

What is claimed is:

1. A method of analyzing cardiac data acquired from a patient having an electronic cardiac implant, the method comprising:
acquiring non-implant cardiac data from the patient;
acquiring implant cardiac data from the implant;
synchronizing the non-implant cardiac data and the implant cardiac data; and
correlating the non-implant cardiac data with the implant cardiac data to determine a cardiac condition of the patient.
2. The method of claim 1 and further comprising selecting the non-implant cardiac data and the implant cardiac data to be correlated.
3. The method of claim 1 and further comprising assigning at least one of a date and a time to at least one of the non-implant cardiac data and the implant cardiac data.
4. The method of claim 3 and further comprising time-synchronizing the non-implant cardiac data and the implant cardiac data based on at least one of the date and time assigned to the non-implant cardiac data and the implant cardiac data.
5. The method of claim 1 and further comprising aligning the non-implant cardiac data and the implant cardiac data based on at least one fiducial point.

6. A method of determining a cardiac treatment for a patient having an electronic cardiac implant, the method comprising:
 - acquiring non-implant cardiac data from the patient; ✓
 - acquiring implant cardiac data from the implant;
 - correlating the non-implant cardiac data and the implant cardiac data to generate a signature pattern; and
 - analyzing the signature pattern to determine a cardiac treatment for the patient.
7. The method of claim 6 and further comprising comparing the signature pattern with subsequently-acquired patient data to determine effectiveness of a current treatment.
8. The method of claim 6 and further comprising displaying the non-implant cardiac data and the implant cardiac data on a display monitor while a clinical condition is provoked to determine the effect of the provoked condition on the non-implant cardiac data and the implant cardiac data.
9. The method of claim 6 and further comprising synchronizing the non-implant cardiac data and the implant cardiac data.

10. A method of developing criteria for a diagnosis of a cardiac condition in a patient having an electronic cardiac implant, the method comprising:

acquiring non-implant cardiac data from the patient;

acquiring implant cardiac data from the implant;

synchronizing the non-implant cardiac data and the implant cardiac data;

correlating the non-implant cardiac data and the implant cardiac data to generate a signature pattern;

assigning a diagnosis of a cardiac condition to the signature pattern;

storing the signature pattern; and

comparing the stored signature pattern to subsequently-acquired implant cardiac data to diagnose the cardiac condition based on implant cardiac data only.

11. The method of claim 10 and further comprising selecting the non-implant cardiac data and the implant cardiac data to be correlated.

12. The method of claim 10 and further comprising assigning at least one of a date and a time to the non-implant cardiac data and the implant cardiac data.

13. The method of claim 12 and further comprising time-synchronizing the non-implant cardiac data and the implant cardiac data based on at least one of the date and time assigned to the non-implant cardiac data and the implant cardiac data.

14. The method of claim 10 and further comprising aligning the non-implant cardiac data and the implant cardiac data based on at least one fiducial point.

15. A patient monitoring system for analyzing cardiac data acquired from a patient having an electronic cardiac implant, the system comprising:

a transmitter that generates a polling signal;

a receiver that receives implant data when the implant responds to the polling signal; and

a software program embodied by a computer-readable medium, the software program including

a data acquisition module that acquires implant cardiac data from the implant and non-implant cardiac data from the patient, and

an analysis module that correlates the implant cardiac data and the non-implant cardiac data and generates a signature pattern based on the correlation.

16. The system of claim 15 and further comprising a wireless device operable to interrogate the implant, receive the implant cardiac data, and transmit the implant cardiac data to the receiver.

17. The system of claim 15 and further comprising a network wherein the patient monitoring system is adapted to communicate with additional devices that are connected to the network.

18. The system of claim 17 wherein the data acquisition module acquires via the network implant cardiac data and non-implant cardiac data stored in the additional devices.

19. The system of claim 15 and further comprising displaying at least one of the non-implant cardiac data, the implant cardiac data, and the signature pattern on a display monitor remote from the patient monitoring system.

20. A method of determining a cardiac treatment for a patient having an electronic cardiac implant, the method comprising:
- acquiring patient data;
 - acquiring implant data from the implant; and
 - correlating the patient data and the implant data to determine a cardiac treatment for the patient.